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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,723	01/22/2001	Jeffrey B. Hoke	3912E (DIV)/ENG0019-00DV	2047

48226 7590 12/10/2008

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EXAMINER	
CONLEY, SEAN EVERETT	
ART UNIT	PAPER NUMBER
1797	

NOTIFICATION DATE	DELIVERY MODE
12/10/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/766,723	HOKE ET AL.	
	Examiner	Art Unit	
	SEAN E. CONLEY	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Remand to Examiner by BPAI 9/29/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *49-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *49-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Remand to the Examiner from the BPAI on September 29, 2008, PROSECUTION IS HEREBY REOPENED. The rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Jill Warden/
Supervisory Patent Examiner, Art Unit 1797.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 49-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fromson et al. (U.S. Patent No. 5,711,071) in view of Hager (DE 4007964A1 – English translation).

Fromson et al., teach the application of a catalytic coating to the surfaces of an air conditioning and ventilating system for a vehicle wherein the catalyst is applied to radiators and condensers, heat exchange surfaces, fan blades, grill means and other ventilating components in order to treat the air surrounding the vehicle to eliminate

ozone therein and minimize any further contribution to the pollution of the surrounding atmosphere (see the abstract, column 1, and column 4, line 8 through column 5, line 50).

Hager teaches the provision of a catalytic coating on outdoor surfaces such as those of buildings to remove ozone from the surrounding atmosphere to prevent smog formation. CuO is recited as the preferred catalyst (see pages 2-3 of the English translation, especially page 2, paragraphs 4-5 and page 3, paragraph 1).

It would have been obvious to one of ordinary skill in the art to form a catalyst coating on the outdoor components of a building HVAC system, such as the condenser, as applied to the equivalent vehicular components as taught in Fromson et al., because it would act to remove ozone from the surrounding atmosphere and reduce smog formation by placement on building structures as taught in Hager.

With respect to claim 58, it is well recognized that the heat exchange surfaces in HVAC systems will reach temperatures above 25° C during normal operation.

4. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fromson et al. in view of Hager as applied to claims 49-59 above, and further in view of Applicant's admission of the state of the art.

On page 2, lines 35-38 of Applicant's instant specification Applicant acknowledges the catalytic activity Of CuO, and on page 3, lines 10-16 Applicant also acknowledges the art recognition of the catalytic activity of manganese oxide.

Hager clearly teaches the use of copper oxides (see pages 2-3 of the English translation) and it would have been obvious to one of ordinary skill in the art to employ any recognized equivalent thereof, such as manganese oxide, which equivalence is acknowledged by Applicant's own admission of the state of the prior art.

5. Claims 49-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beitz et al. (EP 634205A - English translation).

Beitz et al. teach incorporating an ozone decomposing catalyst onto the equipment in air conditioning and ventilating equipment. It is active at normal ambient temperatures to decompose ozone in an air stream (see page 3, line 19 to page 4, line 15 of the English translation). Beitz et al. do not specifically recite that the catalyst is incorporated onto an outdoor component of the air conditioning or ventilation system, however, they clearly specify that it is functional at ambient or normal atmospheric temperatures, and it is commonly recognized that our atmosphere contains a measurable degree of ozone. As such, it would have been obvious to one of ordinary skill in the art to include the catalyst of Beitz et al. on an outdoor component of an air conditioning or ventilating system, such as a condenser, because it would effectively combat the influx of ozone into an air conditioned residence.

With respect to claim 58, it is well recognized that the heat exchange surfaces in HVAC systems will reach temperatures above 25° C during normal operation.

Double Patenting

6. Claims 49-60 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2 and 22-25 of U.S. Patent No. 5,620,672. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept with '672 reciting a specific ozone treating catalyst for the apparatus claimed in the instant claims, the ozone decomposing capability of the recited catalyst being well recognized in the art and therefor obvious in it's application. '672 further claims application of the catalyst to components such a fan blades, which are well recognized as part of an outdoor component of an air handling system

Response to Arguments

7. Applicant's arguments filed 6/16/2006 have been fully considered but they are not persuasive. Applicant argues that the modification of the Beitz reference to place the catalyst on an outdoor component of the ventilating system would destroy the reference, however, the Examiner would disagree. Beitz clearly teaches using the catalyst on air conditioning and ventilating components and does not exclude placement of the catalyst on the outdoor components thereof.

Applicant further argues that the catalyst of Beitz is used at ambient temperatures and below, but that the catalyst of the instant invention is used at high temperatures and bulk air flow. The Examiner would note that Beitz teaches that the catalyst can function at ambient temperatures and does not require high temperatures;

however, the reference does not teach that the catalyst will not function at high temperatures.

Applicant's arguments with respect to claims 49-52 rejected of Fromson et al., have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Conley whose telephone number is 571-272-8414. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 1, 2008

/Sean E Conley/
Primary Examiner, Art Unit 1797